



# ***SOUTHEASTERN FISHERIES ASSOCIATION, INC.***

ALABAMA • FLORIDA • GEORGIA • MISSISSIPPI • NORTH CAROLINA • SOUTH CAROLINA



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October 17, 2003

U.S. Department of Agriculture  
Import Policies and Programs Divisions/FAS  
1400 Independence Ave., S.W.  
Stoop 1021  
Washington, DC 20250-1021

Good Morning:

Please accept this Petition for Certification and Eligibility for a group of producers, Trade Adjustment (TAA) for Farmers we are filing on behalf of all the shrimp producers in the state of Florida.

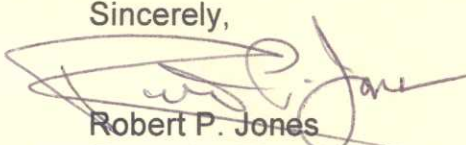
Southeastern Fisheries Association Inc., is a 501 c 6 non-profit fisheries trade association that was founded here in Florida in 1952.

We believe all of the information we submit is current and factual, as we have relied on experts from the University of Florida and Texas A & M in preparation for filing.

I am faxing this to your attention to 202/720-0876 as was shown on form FAS-930. I will also mail a hard copy of the Petition.

If you need any additional information or data, please contact me by phone, fax or e-mail.

Sincerely,

  
Robert P. Jones  
Executive Director

**FAS-930**  
(08-26-03)

**U.S. DEPARTMENT OF AGRICULTURE**  
Foreign Agricultural Service

**TRADE ADJUSTMENT ASSISTANCE (TAA) FOR FARMERS**  
**PETITION FOR CERTIFICATION AND ELIGIBILITY FOR A GROUP OF PRODUCERS**

**NOTE:** The following statement is made in accordance with the Privacy Act of 1974 (5 USC 552a) and the Paperwork Reduction Act of 1995, as amended. The authority for requesting the following information is the Trade Adjustment Assistance for Farmers, (Pub. L. 107-210). The information will be used to determine program eligibility. Furnishing the requested information is voluntary. Failure to furnish the requested information will result in denial of program benefits. This information may be provided to other agencies.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0551-0040. The time required to complete this information collection is estimated to average 6 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **RETURN THIS COMPLETED FORM TO THE ADDRESS LISTED BELOW.**

Please complete all requested information in this form and return it to the following address or fax to (202) 720-0876.

U.S. Department of Agriculture  
Import Policies and Programs Division/FAS  
1400 Independence Ave., S.W.  
Stop 1021  
Washington, DC 20250-1021

If you need assistance, telephone (202) 720-2916 or  
e-mail your questions to:  
**trade.adjustment@fas.usda.gov.**

1. Name of Authorized Representative or Primary Contact <u>Robert P. Jones</u>		2. Name and Business Address (Including City, State, and Zip Code) <u>Southeastern Fisheries Assn. Inc.</u>	
3. Telephone Number (Including Area Code) <u>850/224-0612</u>		1118-B Thomsaville Road Tallahassee, Florida 32303	
4. Fax Number (Including Area Code) <u>850/222-3663</u>		5. E-Mail Address <u>Bobfish@aol.com</u>	
6. This petition is made on behalf of the following producers: (Use separate sheet for additional producers)			
A. Name of Producers	B. Mailing Address	C. Telephone No. (Including Area Code)	D. E-Mail Address
This petition is made on behalf of all shrimp producers in the state of Florida			

**7. COMMODITY INFORMATION:**

A. Description of the raw (excludes processed) agricultural commodity: (e.g., fresh raspberries)  <u>Please see attached Commodity Information for Item 7 a.b.</u>	B. Commodity's Harmonized Tariff Schedule (HTS) Number (HTS can be found at: <a href="http://www.fas.usda.gov/ustrade/">http://www.fas.usda.gov/ustrade/</a> )
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C. This petition is for the most recent marketing year for the commodity beginning in January 1, 2002 and ending Dec. 31, 2002  
(month/year) (month/year)

D. Check whether the certification is to cover a commodity produced nationally or in an "impacted" area (state or states):

☐ National

☒ State(s) (list): Florida

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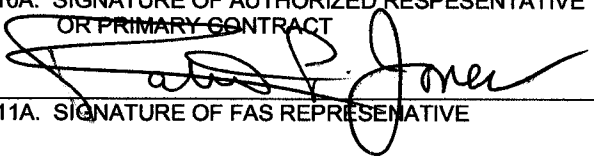
8. If Item 7D "National" is checked, provide the national average annual price for the most recent marketing year and the 5 preceding marketing years. If Item 7D "State(s)" is checked to indicate that the petition is for an impacted area, provide the relevant average price for the most recent marketing year and the 5 preceding years, and specify the months being averaged if the price is for less than 12 months (seasonal price).

(NOTE: National price data is available for many raw agricultural commodities from the Department's National Agricultural Statistical Service (NASS) at: [www.usda.gov/nass](http://www.usda.gov/nass).)

A. Marketing Year	B. Average Annual Price				
Most recent:  2002	\$ 2.06 per pound				
Provide prices for the 5 years prior to the most recent marketing years. Beginning with the most recent.	C. 5-Year Average Annual Price				
	1 Year ago	2 Years ago	3 Years ago	4 Years ago	5 Years ago
	\$ 2.57	\$ 2.33	\$ 2.70	\$ 2.97	\$ 2.69

9. Basis for request for adjustment assistance. Please explain or attach any documents, which show how increased imports have affected the national price of your product during the most recent marketing year. In your description include any other factors which may also have contributed to lower producer prices.

Please see attached Basis for request for adjustment assistance for Section 9 of this application.

10A. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR PRIMARY CONTRACTOR 	10B. TITLE  Executive Director	10C. DATE SIGNED  October 17, 2003
11A. SIGNATURE OF FAS REPRESENTATIVE	11B. TITLE	11C. DATE

## 7. COMMODITY INFORMATION:

### A. Description of the raw (excludes processed) agricultural commodity:

The product of concern with respect to this petition is fresh or frozen, shell-on shrimp. Shrimp is landed from the state and federal waters off the east and west coasts of Florida. During 2001, shrimp represented 30% of the total dockside value derived from all species commercially landed in Florida. Shrimp landed in Florida is brought to the dock in two primary product forms: (1) heads-on fresh or (2) heads-off frozen tails. The product form is determined by the location of fishing activities and the capacity of the trawler with which the shrimp were landed. Trawlers fishing near-shore on shorter trips will use ice to store shrimp until returning to the dock. Larger vessels fishing further offshore on longer trips will use on-board freezer units to maintain the high quality of the shrimp offloaded at port. Shell-on, heads-off shrimp (either fresh or frozen) is the primary product form that is competing domestically with imported, cultured shrimp that is the basis for this petition to the USDA Trade Adjustment Assistance (TAA) program.

### B. Commodity's Harmonized Tariff Schedule (HTS) Number

Nine HTS numbers relate specifically to the commodity described in Section 7a above. Nine, unique HTS numbers are required to describe this particular market form because within the shell-on, headless category, size count is a characterizing element. Size count refers to the various intervals used to distinguish different sizes of shrimp. For example, a size count of "16 – 20" means that at least 16 and at most 20 shrimp tails are necessary to make one pound. These HTS numbers and the corresponding count sizes are as follows: (a) 0306.13.0003 – shrimp larger than 15 count, (b) 0306.13.0006 – shrimp between 15 and 20 count, (c) 0306.13.0009 – shrimp between 21 and 25 count, (d) 0306.13.0012 – shrimp between 26 and 30 count, (e) 0306.13.0015 – shrimp between 31 and 40 count, (f) 0306.13.0018 – shrimp between 41 and 50 count, (g) 0306.13.0021 – shrimp between 51 and 60 count, (h) 0306.13.0024 – shrimp between 61 and 70 count, and (i) 0306.13.0027 – shrimp smaller than 70 count. An additional HTS number, (0306.13.0020) designates un-sized, frozen, shell-on, headless product, though this category is rarely utilized (i.e., there have been no entries between 1996 and the present) (Haby, 2003).

### C. This petition is for the most recent year for the commodity beginning in January 1, 2002 and ending December 31, 2002.

### D. (This petition filing is for the State of Florida).

This petition for TAA certification and eligibility covers shrimp commercially landed in a Florida port by shrimp fishermen licensed by the Florida Fish and Wildlife Conservation Commission (FWC) to produce shrimp from either the state or federal waters adjacent to the Gulf of Mexico and Atlantic coasts of Florida.

## 8. Average Price Change Computation

Annual ex-vessel prices (that received by the vessel) are collected for each transaction between an offloading shrimp vessel and a licensed wholesale dealer. During this transaction, a "trip ticket" is completed which provides, among other information, the volume of each species landed and the sales value. A copy of this transaction is submitted to the FWC. This program, referred to as the Florida Trip Ticket Program, was implemented in 1985 and is the data collection program by which all commercial fisheries landings in Florida are reported. The data utilized for the price analysis requested by this petition were obtained from the Trip Ticket Program as administered by the Florida Marine Research Institute (FMRI), FWC. This data collection system replaced a previous system based primarily on recall interviews. Thus, the accuracy and timeliness of the resulting data, including volume landed and sales value, are widely considered to be greatly improved.

The data for this section of the petition were obtained from the website maintained by the FWC. This website, [http://floridamarine.org/features/view\\_article.asp?id=19224](http://floridamarine.org/features/view_article.asp?id=19224), provides the commercial landings data in Florida for the last several years. The trip ticket data are submitted to FMRI by wholesale dealers, reviewed for errors, and posted by the most recent "batch" or data set. The data for 2001 are the most recent available on this website for a complete calendar year. Currently, data for 2002 are on the website but are deemed to be "preliminary" (only available through 18 November 2002). However, complete data for the years 1998-2001 were obtained from this website. Data for 1997 were obtained from archived FMRI data. Complete data for 2002 were obtained directly from FMRI via a verbal request, but are not yet available on the aforementioned website. These data represent the most recent data available describing the landings and value associated with the commercial shrimp fishery in Florida.

For the purposes of this analysis, a "marketing year" is assumed to be a calendar year, though the associated landings and fishing effort rarely align cleanly with the January – December period. Trip ticket data are reported monthly as well as annually on a calendar year basis. However, the average annual data are generated by summing monthly reported landings and value over the course of a calendar year. In addition, the primary species of concern for this petition are pink, white, and brown shrimp. These species are the most similar species to those shrimp species being cultured and imported into the US market. Also, the current methods of processing and marketing pink, white, and brown shrimp renders a product that is more likely to compete in the market with imported cultured shrimp. Thus, the price analysis discussed below only includes data for pink, white, and brown shrimp landed in Florida. The resulting average landings and value, and thus price, reflect the annual averages over the course of the calendar, or marketing, year (see **Table 1**).

Annual ex-vessel price (heads-on) for pink, white, and brown shrimp commercially landed in Florida during the five-year period from 1997 to 2001 ranged from \$2.98 per pound in 1998 to \$2.33 in 2000. These prices were weighted across species and averaged across all size classes. During the five-year period, the average annual price per pound was \$2.65. The average price during the most recent marketing year was \$2.06. This was obtained by dividing the total ex-vessel value for 2002 (\$73,277,655) by the total pounds landed (18,021,349 pounds converted to whole weight as reported by FWC) for each year, then computing the average price across the five-year period. The percentage comparison between the five-year average and the most recent marketing year is obtained by subtracting the 2002 price (\$2.06) from the five-year average price (\$2.65), then dividing the difference by the five-year average. The result is the percentage change of the most recent marketing year from the five-year average, or .779. Thus, the 2002 price



represents 77.9% of the previous five-year average, a decline of 22.1 %. This exceeds the required decline of 20% as stated in the guidelines for the Trade Adjustment Assistance program. Thus, the Florida commercial shrimp industry would appear to qualify for TAA eligibility on the basis of this finding.

<b>Table 1. Landings, Dockside Value and Ex-vessel Price for Commercial Shrimp in Florida.</b>			
Year	Pounds (heads-on)	Value	Price
1997	21,385,889	54,966,517	2.57
1998	26,269,897	61,326,624	2.33
1999	18,150,846	49,007,178	2.70
2000	15,119,022	44,972,312	2.98
2001	16,698,667	44,891,797	2.69
2002	18,021,349	37,277,655	2.06
<b>Source:</b> Data were obtained from the Trip Ticket Program, Florida Marine Resource Institute, Florida Fish and Wildlife Conservation Commission.			

## **9. Basis for request for adjustment assistance.**

This petition for TAA eligibility is being submitted by the Southeastern Fisheries Association on behalf of the commercial shrimp industry of Florida. The primary basis for this request is that the average ex-vessel prices received by commercial shrimp vessel operators in Florida has been declining dramatically. Section 8 of this petition demonstrates that the average ex-vessel prices of shrimp (averaged across all size classes for the three major species of shrimp landed in Florida) has declined approximately 22% when comparing price data for 2002 against the 1997-2001 period. This decline in price has been in large part attributed to the rapid increase in the volumes of aquacultured shrimp imported into the US market. The downward pressure on average ex-vessel price as a result of these increased levels of import supplies has caused ex-vessel prices to decline to a level that has placed many commercial shrimp vessels in Florida in financial stress. Thus, the TAA program is viewed as a source of welcome financial relief.

Recent changes in the domestic shrimp market are outlined in the following discussion. The purpose of the discussion is to provide the reader with an overview of the world market for shrimp, changes in the importance of cultured shrimp on the world market, and trends in the importance of imported shrimp (both wild caught and cultured) within the US market, of which Florida is a major sector. The text from the following discussion was extracted from materials contained in the TAA petition filed by the Texas Shrimp Association (Haby, 2003) and materials developed by the University of Florida (Adams, 2003). The materials from the Texas TAA petition were borrowed with approval of the author since the discussion applies to the general market and economic conditions which prevail in the shrimp industry within the Gulf of Mexico and South Atlantic region.

### **Introduction**

The warm-water shrimp harvesting industry in the Gulf of Mexico and South Atlantic (GSA) region represents the most economically important component of all of the domestic commercial seafood harvesting sectors in the United States. The volume and dockside value (i.e., payment received by the vessel) of commercial shrimp landings in the GSA region for all shrimp species was estimated to be 280 million pounds (whole weight) and \$546 million dockside, respectively, during 2001 (US Dept. of Commerce, 2002). On a dockside value basis, this represents 96% of the total shrimp dockside value in the US, and exceeds the total dockside value for all species of crabs (\$381 million) and wild caught salmon (\$208 million), the two other most important species groups. The shrimp harvest sector is reportedly comprised of over 20,000 vessels and craft that actively target shrimp in near-shore and offshore waters with trawls and other gear in the GSA region (Gulf of Mexico Fishery Management Council, 2002; Swingle, 2001; South Atlantic Fishery Management Council, 1999). Less than half of these vessels operate in offshore waters, while the remainder operate in near-shore bays and estuaries.

The shrimp industry contributes to local coastal economies on several levels. Shrimp are offloaded by shore-side handling facilities, which then set in motion a myriad of economic activities associated with processing, packing, wholesale distribution, and consumer expenditures. Vessel maintenance, repair, refueling, and other activities also contribute to the overall economic activities associated with the industry. Previous studies have suggested that the commercial shrimp industry plays an important role in the economy of the GSA region. Centaur Associates (1984) found that the shrimp industry within the GSA region created 73,000 jobs, generated approximately \$1 billion in income, and created \$1.4 billion in added value for the U.S. economy. A more recent study estimates that the commercial shrimp industry in Florida alone creates \$130

million in economic impact to the state's economy (Adams, 2002). Thus, the commercial shrimp industry is an important natural resource-based contributor to the economy of the nation and the GSA region, and provides an important source of employment and income to the coastal communities in which the vessels homeport, provision, and offload.

The shrimp industry in the GSA region has been subjected to several changes in the overall domestic market for shrimp in the U.S., as well as an evolving cost structure confronting vessels. These changes have recently created financial difficulties for individual vessel operators and fleet owners. The situation confronting vessel operators is a classic cost/price squeeze, in which market prices are falling at the same time that operating costs are increasing. The reduced remaining profit results in a situation where trip operating costs may exceed the anticipated returns for a trip. When this happens, vessel owners cannot afford to invest in trip expenses, and vessels stayed tied to the dock. This situation is reportedly being played out within the shrimp fleet in many areas of the GSA region.

Foremost in this evolving business environment for vessel operators has been the increasing dependence of the U.S. market for imported shrimp. The quantity of shrimp imported into the U.S. market has increased dramatically in recent years, placing strong downward pressure on the price of shrimp received at the dock by vessels. The surge in imports is a result of an ever-increasing domestic demand for shrimp products in the U.S., as well as changes in the demand for shrimp in the EU and the world market in general. A recession in many Asian markets and changing tariff structures in the EU with respect to certain Southeast Asian countries have directed even more foreign shrimp into the U.S. market. As a result of these increased supplies of shrimp, prices of heads-on shrimp at the docks are reportedly at historically low levels throughout the GSA region. At the same time, fuel prices have increased dramatically due to crude oil shortages and other recent events in the Middle East. Other costs such as insurance premiums for commercial vessels have also increased, further cutting away at a dwindling vessel profit margin. In addition, changes in vessel operation dictated by fishery management plan revisions and environmental concerns associated with by-catch have imposed additional costs on vessel operation. For example, requiring shrimp vessels to utilize turtle excluder devices and finfish by-catch reduction devices have imposed additional investment and operating costs on vessels. And given that shrimp vessels are typically price takers, there is little if any role for vessel operators to pass these imposed costs on to the wholesale purchasers and other consumers of their product. The resulting cost/price squeeze has reportedly created significant financial hardship within the commercial shrimp fleet in the GSA region.

#### Overview of World Shrimp Production, with Emphasis on Aquaculture

Imports have been a growing contributor to U.S. shrimp supplies for many years. Considering that the annual domestic harvest is roughly 200 million pounds per year, any market growth beyond that level has to be fueled by imported shrimp. However, record imports of shell-on, headless shrimp began in 2001 and reduced the prices fishermen receive for their catches; in some size counts by as much as \$2.00 per pound below 2000 prices. This section of the report reviews what is known about shrimp supplies and imports, examines the drivers that steer the international trade in shrimp, and highlights how the effects of record imports and resulting lower prices influence firm-level decision-making among fishermen.

#### *Worldwide shrimp production.*

Shrimp are available from practically every tropical and subtropical coastal country in the world. Historically, the source of supply has been wild harvests from the worldwide band of nearshore



tropical waters. However, with many wild sources being harvested close to their maximum sustainable levels, new supplies have come from coastal shrimp farms; most located in developing countries within Southeast Asia, the Indian sub-continent, and Central America.

Between 1979 and 1999, world production of tropical shrimp grew from 1.86 billion pounds of shell-on, headless product to 4.3 billion pounds (Vondruska, 2001). In 1979, pond-raised shrimp contributed just 88 million shell-on, headless pounds to world production (4.7 percent) while wild sources supplied 1.78 billion pounds (Vondruska, 2001). Twenty-one years later wild harvests stand at 2.74 billion pounds worldwide, with cultured shrimp comprising 36.5 percent of the world production base of tropical shrimp (1.57 billion shell-on, headless pounds) (Table 2, Figure 2). Over this 21-year time frame, wild harvests grew about 41 million pounds a year while pond production grew by about 84 million pounds each year (Haby, Miget, Falconer, and Graham, 2002).

Table 2. Worldwide Production of Tropical Shrimp  
from Capture Fisheries and Aquaculture

Year	Capture	Aquaculture	Total Supplies	Percent Cultured
	Shell-on, Headless Pounds			
1979	1,773,416,673	88,072,110	1,861,488,783	4.7%
1980	1,804,307,202	99,875,718	1,904,182,919	5.2%
1981	1,702,061,594	123,080,079	1,825,141,673	6.7%
1982	1,794,246,977	155,604,248	1,949,851,225	8.0%
1983	1,787,352,626	197,509,347	1,984,861,973	10.0%
1984	1,841,473,910	239,339,432	2,080,813,342	11.5%
1985	2,050,588,216	296,782,173	2,347,370,389	12.6%
1986	2,157,141,578	444,073,748	2,601,215,325	17.1%
1987	2,102,309,049	686,417,911	2,788,726,960	24.6%
1988	2,135,543,073	801,477,038	2,937,020,112	27.3%
1989	2,006,452,142	863,014,994	2,869,467,136	30.1%
1990	2,034,144,847	935,179,947	2,969,324,795	31.5%
1991	2,145,651,918	1,157,905,145	3,303,557,063	35.1%
1992	2,139,891,113	1,237,293,679	3,377,184,791	36.6%
1993	2,063,872,657	1,178,313,148	3,242,185,805	36.3%
1994	2,278,169,882	1,237,160,320	3,515,330,202	35.2%
1995	2,237,239,967	1,323,777,990	3,561,017,957	37.2%
1996	2,356,067,858	1,335,178,744	3,691,246,602	36.2%
1997	2,508,452,056	1,390,439,131	3,898,891,187	35.7%
1998	2,548,422,069	1,493,166,774	4,041,588,843	36.9%
1999	2,735,697,548	1,570,763,304	4,306,460,851	36.5%

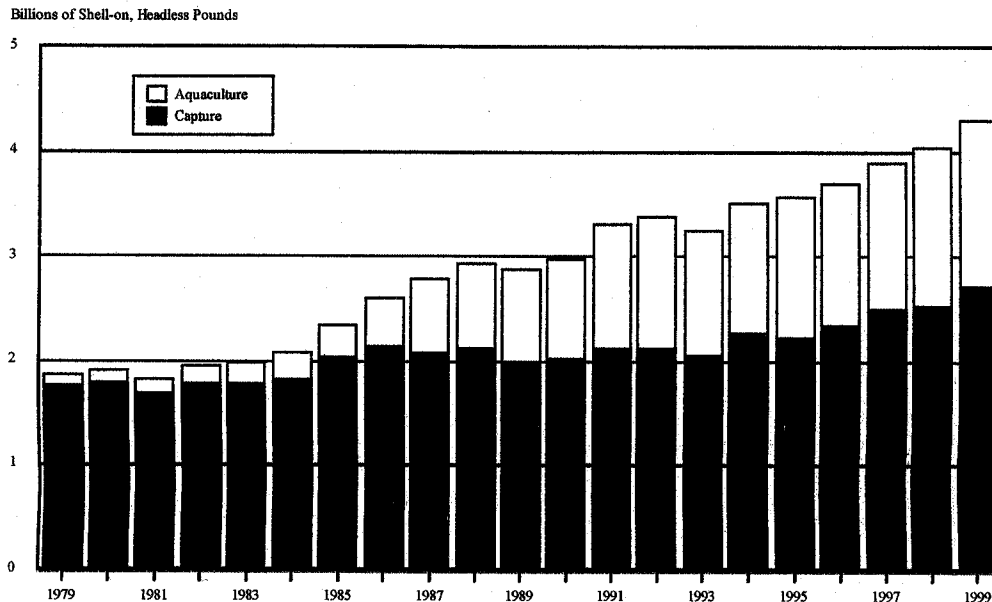


Figure 2. Annual Changes in World Production of Tropical Shrimp From Capture Fisheries and Aquaculture

Within the next few years growth in the farm-raised fraction of global shrimp supplies will increase as technological advances reduce both (a) the risk of crop failure and (b) the cost of production. Likewise, many developing countries continue to pursue a policy of producing and processing various agricultural commodities for the export trade as a means of improving their national infrastructures (through acquisition of “hard” currency) and providing employment to a growing labor force. Furthermore, contemporary shrimp farming need not be exclusively located in the coastal zone. In the early days, shrimp farming was limited to coastal regions where estuarine water could be pumped into ponds. Today, however, some countries have developed farms in upland areas since species like Pacific white shrimp (*Litopenaeus vannamei*) can be grown in fresh water. Aside from the obvious advantage of greater expansion capability, moving away from the coastal zone typically reduces the environmental impacts on sensitive, estuarine areas. Finally, the shrimp-farming paradigm seems to be shifting. Historically, the shrimp-farming industry worked to emulate what drove value in wild-harvests by seeking to culture larger shrimp because, on a per pound basis, they are more valuable. Today however, the farms in developing countries seem more focused on establishing an integrated supply chain with large, national food service operators. This supply chain captures the comparative advantages shrimp farming offers; notably several crops per year of a predetermined, mid-sized count best suited for offering several different shrimp preparations as a single, value-priced entree.

#### *Market growth in the major shrimp-consuming countries.*

The major worldwide markets for shrimp are Japan, the E.U. and the U.S. Between 1988 and 1999, the U.S. has consistently retained its status as the largest shrimp market (Table 3, Figure 3) (Vondruska, 2001). Computed annual growth in apparent consumption of shrimp in the U.S. is 27.3 million pounds a year (Haby, Miget, Falconer, and Graham, 2002). By comparison, the E.U. is the second largest major market for shrimp, with consumption increasing by an average of roughly 25 million pounds per year between 1988 and 1999 (Haby, Miget, Falconer, and Graham,

2002). In contrast to both the U.S. and the E.U., shrimp consumption in Japan grew between 1988 and 1994 but then began to decline in response to slower economic growth that affected consumer demand for shrimp [3].

Table 3. Apparent Annual Consumption of Shrimp Among Major Markets

Year	Shell-on, headless pounds			
	USA	European Union	Japan	Total
1988	788,280,000	513,810,467	618,465,015	1,920,555,482
1989	738,633,000	554,359,756	670,020,120	1,963,012,876
1990	719,225,000	611,884,457	683,426,520	2,014,535,977
1991	777,954,000	662,350,887	688,806,720	2,129,111,607
1992	840,958,000	716,991,714	685,373,535	2,243,323,249
1993	817,042,000	694,483,316	713,890,800	2,225,416,116
1994	870,247,000	727,996,560	725,755,905	2,323,999,465
1995	846,644,000	695,055,646	695,648,835	2,237,348,481
1996	864,468,000	743,123,014	689,604,930	2,297,195,944
1997	930,642,000	722,002,378	641,037,600	2,293,681,978
1998	1,000,792,000	848,346,959	571,333,140	2,420,472,099

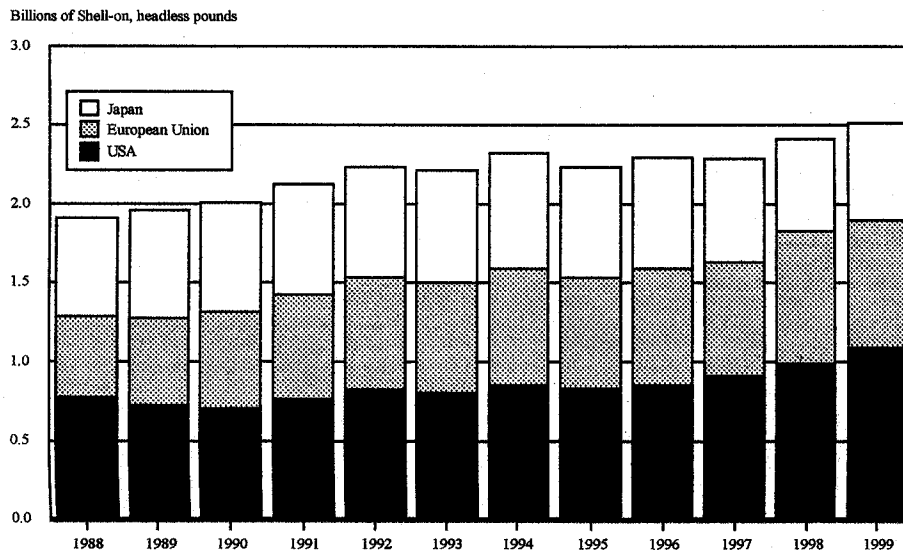


Figure 3. Apparent Consumption of Shrimp Across the Major World Markets

When worldwide supplies (Table 2, Figure 2) are compared with total apparent consumption from the three major markets (Table 3, Figure 3), it is clear that shrimp consumption across the rest of the world is also increasing (Haby, Miget, Falconer, and Graham, 2002). In 1988, approximately two-thirds of worldwide supplies (1.9 billion shell-on, headless pounds) were consumed in the U.S., the E.U. and Japan, with 1 billion pounds consumed in the rest of the world. In 1999 however, the U.S., the E.U. and Japan consumed 58 percent (2.5 billion pounds) of the 4.3 billion pound worldwide supply that year, with the rest of the world using approximately 1.8 billion pounds. Increasing worldwide consumption outside the major shrimp markets is a positive signal for the domestic shrimp industry because it suggests that more of the growing supply base is being consumed outside the historic major shrimp consuming regions.

## US Shrimp Supply

The total US supply of shrimp in the domestic market has increased dramatically over the last 20 years. And the source of shrimp that comprises the total supply has evolved as well. Prior to 1979, domestic landings accounted for more than half the total US supply. During 1978, domestic landings represented 52% of total supply (257 million pounds). Each year since then, imported shrimp have exceeded US landings, and have exhibited a rapidly increasing share of the total market, particularly since 1996 (US Department of Commerce, National Marine Fisheries Service, 2002). Shrimp imports have increased from 240 million pounds during 1978 (48% of total supply) to 721 million pounds during 1996 (79% of the total supply) (Figure 4). During this period, imported shrimp products increased at an average annual rate of 6.7%, while domestic landings have remained relatively stable. However, this annual percentage increase has risen considerably since 1996. Import volumes increased from 811 million pounds in 1997 to 1.2 billion pounds during 2001. During this five-year period, shrimp imports increased at an average annual rate of 10.4%, while domestic landings again remained relatively stable at approximately 200 million pounds. The share of total domestic shrimp supply represented by imports had increased from 48% in 1978 to 85% in 2001. Imported product now dominates the market. *Note: the data shown in Figure 4 represent all product forms of imported shrimp, which includes peeled and deveined, shell-on headless, breaded, and other product forms, whether fresh or frozen.*

Million pounds (shell-on, headless weight)

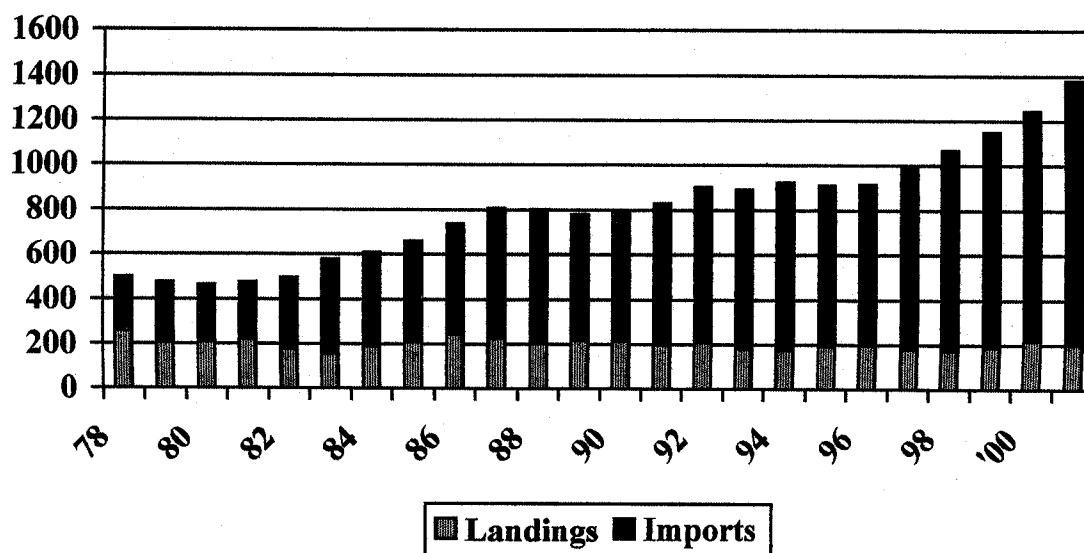


Figure 4. US Shrimp Supply: Landings and Imports Components (all product forms)

The market for shrimp products is global. And as the technology of culturing shrimp has become standardized, a shift has occurred in the relative importance of shrimp exporting countries. Twenty years ago the predominant regions of the country that exported shrimp to the US were Mexico, Central America, and northern South America. Trawling was still the most important method of producing shrimp. The most important world region in terms of exporting shrimp to the US market is now Asia and Indonesia (Table 4). Five of the top ten countries that exported shrimp to the US in 2001 are located in this global area. The combined exports associated with these five countries accounted for almost two-thirds of the total shrimp exported to the US. The leading country of origin for imported shrimp products during 2001 was Thailand (300 million lbs), followed by Vietnam (73 millions lbs), India (72 million lbs), Mexico (66 million lbs), China (62 million lbs), and Ecuador (59 million lbs). These regions export warm-water shrimp to the US. And for these Asian countries, the majority the exported shrimp is cultured in saltwater pond systems, not trawled or otherwise wild-caught.

Table 4. Major Countries of Origin for the US Shrimp Market, 2001 (all product forms)

Country	Volume (million lbs)
Thailand	299.9
Viet Nam	73.3
India	72.5
Mexico	66.2
China	61.8
Ecuador	58.9
Indonesia	34.9
Guyana	25.8
Brazil	21.6
Honduras	21.3
<b>Source:</b> US Department of Commerce, National Marine Fisheries Service. "Fisheries of the United States, 2001".	

*Quantifying the volume of farm-raised shell-on, headless shrimp imported to the U.S.*

The final rule published in the Federal Register of August 20, 2003 specified that commercial fishermen would be covered under the Trade Adjustment Assistance Program if the value of their catch was adversely affected by imported, aquacultured products. The data to make this assessment are available, and come from two sources.

The first source is the import database maintained by the Bureau of the Census and available online from the International Trade Commission (ITC) (United States International Trade Commission, 2003). The shrimp import data used in this review reflect "imports for consumption." Thus, both actual, physical entries into the U.S. and withdrawals from stocks in

Customs-bonded warehouses are included in these values. All import data are classified by year, month, exporting country, and the ten-digit Harmonized Tariff Schedule (HTS) number. The ITC data web provides timely, accurate information about the volumes and values of imports. However, the specific *method* used to produce shrimp (i.e., wild-harvests from capture fisheries or farm-raised products from culture systems) is not a classification variable. To estimate the fraction of any country's total production of aquatic and marine organisms attributable to either wild-harvests or culture systems, another set of online databases is required. These data are maintained by the Food and Agriculture Organization of the United Nations (United Nations, Food and Agricultural Organization, 2003). Two distinct data bases express the annual production of various aquatic and marine organisms attributable to either wild harvests or culture systems so percentage values can be computed for each species produced in reporting countries. For example, in 2001 Thailand produced 4.7 billion pounds of shrimp (expressed on a live weight basis). Wild harvests generated 182 million pounds (3.9 percent of total Thai shrimp production) while shrimp culture yielded 4.5 billion live weight pounds (96.1 percent). To apply the computed capture/culture percentage values to shrimp imports by country, the assumption is made that a country's shrimp exports to the U.S. parallel the computed capture/culture fraction.

Utilizing the approach outlined in the preceding paragraph, work completed earlier this year suggests that 80 percent of all shrimp imported to the U.S. was farm-raised between 1997 and 2001 (Haby, Miget, Falconer, and Graham, 2003). Between 1997 and 2000 imports of shell-on, headless shrimp ranged from 339 million pounds to 345 million pounds, and averaged 342.4 million pounds (Table 5, Figure 5). Beginning in 2001 however, imports within the shell-on, headless fraction alone increased by approximately 103 million pounds; a 30 percent increase over 2000 imports. In 2002 imports of shell-on, headless shrimp equaled 456 million pounds; a 14 million pound increase over the previous year.

Table 5. U.S. Imports of frozen, shell-on, headless shrimp classified by production method

Year	Pounds of shell-on, headless shrimp		
	Wild-harvested	Farm-raised	Total
1997	73,263,198	270,441,356	343,704,554
1998	68,752,436	273,204,201	341,956,637
1999	62,982,582	281,980,344	344,962,926
2000	67,855,602	270,942,858	338,798,460
2001	88,039,868	353,618,211	441,658,079
2002	90,720,387	365,160,954	455,881,341

The recent history of imported, shell-on, headless shrimp demonstrates an unprecedented increase between 2000 and 2001 with an additional increase in 2002 over the 2001 level. Likewise, Table 1 (above) demonstrates that annual, ex-vessel shrimp prices have eroded in both 2001 and 2002. However, questions remain about why shrimp imports increased so dramatically within 2001 and continued through 2002. Solving this riddle requires looking first to Southeast Asia, a major shrimp-farming region, then to the European Union where tariff and non-tariff barriers exist for many of their imports.



Millions of pounds

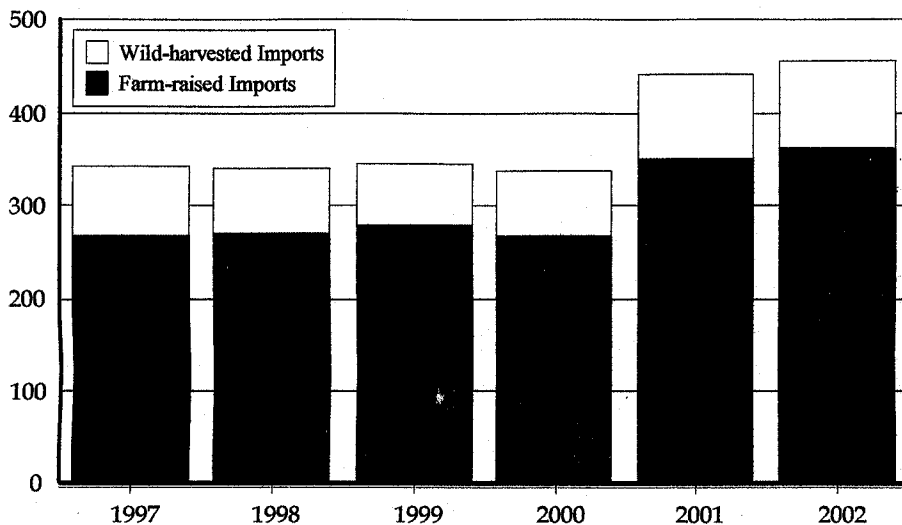


Figure 5. U.S. Imports of frozen, shell-on, headless shrimp classified by production method

#### Global Economy and Trade-Related Issues

Other global economy and trade-related issues have possibly had an impact on the volume of shrimp entering into the U.S. market. Each of these issues may have served to further increase the volume of shrimp entering into the U.S. market from foreign sources, thereby placing additional downward pressure on dockside price for shrimp in the GSA region, including Florida.

First, the relative economic conditions in the three primary shrimp importing regions (i.e. U.S., Japan, and the EU) have led to a greater apparent rate of growth of imports into the U.S. than the other two regions. Vondruska (2003) suggests that factors such as differing exchange rates, unemployment, and economic growth rates among the three key regions has led to a greater relative rate of shrimp import growth in the U.S.

Second, a changing tariff structure during 1999 confronting Thai shrimp imports into the EU may have resulted in shrimp being redirected to the U.S. market over the last few years. The EU decided to no longer allow Thailand the benefits from the EU Generalized System of Preferences (GSP), whereby developing countries with weak economies are given preferential treatment regarding import tariffs. Given that Thailand (previously considered a developing country) is now the leading shrimp exporter, these reduced tariffs have been repealed. Under the EU's GSP, raw and cooked shrimp imported into the EU were subjected to a 4.5% and 6% tariff, respectively. Following the repeal of the GSP benefits, raw and cooked shrimp imported into the EU will be subject to a 14.5% and 20% tariff, respectively. Since the U.S. allows the duty-free importation of shrimp products, the redirection of shrimp from the EU into the U.S. would be likely.

Third, in early 2002, following the detection of the banned substances chloramphenicol and nitrofurans in shrimp imported from Thailand, the EU adopted a zero tolerance program for the

detection of these substances. The EU detection methods allowed a detection level of 0.1 ppb, while U.S. methods provided a detection level of 5.0 ppb. These U.S. detection levels have since been revised to 1.0 ppb (and possibly 0.3 ppb in the future). However, the differing detection levels, and the resulting zero tolerance policy for contaminated Thai shrimp entering the EU market provided a window of opportunity for Thai shrimp rejected by the EU to be redirected into the U.S. market. As with the other two trade-related issues mentioned above, the food safety concerns regarding these two banned substances provided an opportunity for an additional unanticipated surge of shrimp to enter into the U.S. market. Any additional supplies entering into the U.S. market would have placed further downward pressure on domestic shrimp prices.

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